OBOLENTSEV, R.D., doktor khim. nauk, otv. red.; MASHKINA, A.V., kand. khim. nauk, red.; MOZHKINA, I.A., kand. khim. nauk, red.; ROZENTSVEYGSKIY, V.P., kand. khim. nauk, red.; GLADKOVA, L.K., red.; SIDOROV, V.V., red.; SHAFIN, I.G., tekhn. red.

[Chemistry of sulfur and nitrogen organic compounds in petroleum and petroleum products] Khimiia sero- i azotoorganicheskikh soedinenii, soderzhashchikhsia v neftiakh i nefteproduktakh. Ufa. Vol.3. 1960. 337 p. (MIRA 14:5)

1. Akademiya nauk SSSR. Bashkirskiy filial. Ufa. Otdel khimii. 2. Bashkirskiy filial AN SSSR, Otdel khimii (for Obolentsev)

(Petroleum--Analysis) (Sulfur organic compounds) (Nitrogen organic compounds)

OBOLENTSEV, R.D.; MASHKINA, A.V.

Hydrogenolysis of sulfur organic compounds under conditions of hydrofining. Khim.sera-i azotorg.soed.sod.v neft.i neftepred 3:295-329 '60. (MIRA 14:6)

1. Bashkirskiy filial AN SSSR, Otdel khimii.
(Sulfur organic compounds) (Petroleum--Refining)

5:3620

80001

AUTHORS: Obolentsev, R. D., Mashkina, A. V.

S/020/60/131/05/030/069
B011/B117

TITLE: Kinetics of the Reactions of Hydrodesulfuration

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 5, pp 1092-1095 (USSR)

TEXT: In their paper, the authors report on the results of the systematic study of the kinetics of hydrogenolysis for 14 sulfides and thiophenes in the presence of an aluminum-cobalt-molybdenum catalyst (Al-Co-Mo). Experimental methods used were described in reference 4. Figure 1 shows, as an example, the curves of the dependence of the conversion degree on the time of contact for 2,4,6,8-tetramethyl-5-thiononane. The shape of these curves is characteristic of all compounds investigated here. Hydrogenolysis is well-defined by equations suggested in a general form by Frost ($v_0 \ln \frac{1}{1-y} = \alpha + \beta v_0 y$) and Kazeyev ($\ln \frac{D}{D-M} = a\tau^b$) ($v_0$ being the average feeding rate of the compound used to the reaction vessel per 1 g of the catalyst per 1 hour; y the intensity of hydrogenolysis in fractions of unity; α and β parameters; τ time of contact in seconds, M the intensity of hydrogenolysis in %; D the limit of M for $\tau \to \infty$, a and b parameters). The parameters of these equations for 14 compounds investigated are given in table 1. From an analysis of these parameters, it follows that the organic compounds of

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Kinetics of the Reactions of Hydrodesulfuration

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sulfur form as to their rate of hydrogenolysis, the following sequence with increasing activity holds: A, B, V, G, D, Ye, Zh, Z, K, L, M, N, O, P. The values of the parameter α are proportional to the rate constants of the hydrogenolysis reaction of these compounds at 375°. They are related to each other in the following way: (A, B, V, G, D) : (Ye, Zh) : (Z, K) : (L, M, N, O) : P = = 1 : 2 : 3 : 4 : 7. The possibility of obtaining a selective hydrodesulfuration of petroleum products on the Al-Co-Mo catalyst is based on this dependence. In addition, this catalyst may be used to perform group analyses of organic compounds of sulfur. This dependence makes it possible, moreover, to predict the type of products formed by hydrogenolysis. The hydrogenolysis rate of organic compounds of sulfur obeys the law of additivity (curves in Fig 2). Thereby, the prediction of the composition of organic compounds of sulfur formed when petroleum products are hydrodesulfurized is made possible. The authors intended to study the influence of the reaction products on the rate of hydrogenolysis. Dibenzo thiophene solved in cetane with diphenyl and H_2S added was therefore subjected to hydrolysis. Maximum intensity and rate of hydrogenolysis are rapidly reduced by the addition of biphenyl to the initial solution of dibenzo thiophene, but are practically independent of the H_2S added (Fig 3). Dibenzo thiophene together with its derivatives represents the major part of the so-called "residual sulfur".

8000

Kinetics of the Reactions of Hydrodesulfuration

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B01*/B117

Results obtained are of interest in the processing of petroleum. From table 2, it is obvious that hydrodesulfuration should be performed in the dispersed layer for the best results. Moreover, data obtained by the authors can contribute to the development of new ways of obtaining hydrodesulfurizing catalysts. The main products of hydrogenolysis are H_2S and the corresponding hydrocarbon. Monocyclic hydrocarbons are not hydrogenated practically under the conditions given. The Al-Co-Mo catalyst can be used to identify organic compounds of sulfur by means of their hydrolysis products (analogously to Raney nickel). There are 3 figures, 2 tables, and 4 references, 2 of which are Soviet.

ASSOCIATION: Otdel khimii Bashkirskogo filiala Akademii nauk SSSR (Department of Chemistry of the Bashkiriya Branch of the Academy of Sciences. USSR)

PRESENTED: December 8, 1959, by A. V. Topchiyev, Academician

SUBMITTED: December 8, 1959

Card 3/3

MACHKINA, A. V.

PHASE I BOOK EXPLOITATION SOV/5769

Obolentsev, Roman Dmitriyevich, and Anna Vasil'yevna Mashkina

Gidrogenoliz seraorganicheskikh soyedineniy nefti (Hydrogenolysis of Organic Sulfur Petroleum Compounds) Moscow, Gostoptekhizdat, 1961. 143 p. 2,100 copies printed.

Executive Ed.: O. M. Yenisherlova; Tech. Ed.: A. S. Polosina.

PURPOSE: This book is intended for scientific workers and engineers at research institutes, design and planning organizations, and petroleum refineries, and can also be used by students in advanced courses in schools of higher technical education specializing in petroleum engineering.

COVERAGE: The book systematizes and describes reactions of the hydrogenolysis of organic sulfur compounds of the type present in petroleum crudes. Information is also given on reaction thermodynamics, kinetics, and the mechanism of reactions which constitute the theoretical basis of the hydrorefining process. A significant part of the data can serve as reference material for designing, planning, and operating hydrorefining installations at petroleum-refining plants

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Hydrogenolysis of Organic Sulfur Petroleum Compounds 807/5769

No personalities are mentioned. There are 116 references: 67 Soviet, 46 English, and 3 German.

TABLE OF CONTENTS:

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S/081/62/000/002/008/107
B149/B108

5.3300

AUTHORS: Obolentsev, R. L., Mashkina, A. V., Kuzyyev, A. R., Gribkova, G. P.

TITLE: Kinetics of catalytic hydrogenolysis of some organic compounds of divalent sulfur

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962. 76, abstract 2B543 (Sb. "Khimiya seraorgan. soyedinenyy soderzhashchikhsya v neftyakh i nefteproduktakh. v. 4". M. Gostoptekhizdat, 1961, 166-176)

TEXT: The kinetics of hydrogenolysis of 2.8-dimethyl-5-thiononane, diphenyl- and dibenzyl sulfides, 2.5-dibutyl thiophene, 2-octylthiophene, 2-phenyl thiacyclopentane, and 3-methyl thionaphthene have been studied in the presence of commercial aluminum-cobalt-molybdenum catalyst. It has been found that in the above reactions elemental sulfur and mercaptans are formed. The authors conclude that hydropurification of petroleum products in a suspension layer is feasible. [Abstracter's note: Complete translation.]

/B

Card 1/1

S/081/62/000/004/066/087
B150/B138

5 3300

AUTHORS: Obolentsev, R. D. Mashkina, A. V., Mikheyev, G. M.

TITLE: The hydro-refining of highly sulfurous petroleums

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 477-478, abstract 4M140 (Sb. "Khimiya seraorgan. soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh. v. 4", M., Gostoptekhizdat., 1961, 184-188)

TEXT: Experiments were made in the hydrorefining of highly sulfurous Arlan petroleums in a once-through laboratory set-up under H_2 pressure in the presence of a sulfurized alumo-cobalt-molybdenic catalyst. The dependence of the depth of hydro-desulfurization upon the temperature, volumetric speed and partial H_2 pressure was studied. It was found that in the temperature range 350-425°C the depth of desulfurization increases from 40 to ~68% with a comparatively small increase in yield of light fractions (beginning to boil at 300°C) from 48 to 55%; a further rise in temperature up to 500°C

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The hydro-refining of highly... S/081/62/000/004/066/087
B150/B138

produces considerable development in the hydro-cracking reaction, and the depth of desulfurization reaches 87%. A study of the catalyst fatigue shows that in the first hours of working, the activity of the catalyst falls sharply, and then keeps to a constant desulfurization level of ~30%. Preliminary results obtained indicate the possibility of deep hydrodesulfurization of Arlan petroleum and the production from low-sulfur refined-crude residues and of light petroleum products with standard properties. A diagram of the plant is submitted. [Abstracter's note: Complete translation.]

Card 2/2

MASHKINA, A.V.; KHRAMOV, A.V.; CHERNOV, V.I.

Catalytic hydrogenation of 3-sulfolene. Kin.i kat. 3 no.5: 742-746 S-O '62. (MIRA 16:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR.
(Thiophene) (Hydrogenation) (Catalysis)

MASHKINA, A.V.; [illegible]

Catalytic [illegible]
aliphatic series. [illegible]

[illegible]

OBOLENTSEV, R.D., prof., doktor khim. nauk, otv. red.; GAL'PERN, G.D., doktor khim. nauk, red.; GUR'YANOVA, Ye.N., doktor khim. nauk, red.; MASHKINA, A.V., kand. khim. nauk, red.; PIVOVAROVA, T.Ye., kand. khim. nauk, red.; POZDEYEV, N.M., kand. fiz.-mat. nauk, red.; SOSKOVA, L.M., red. LEVINA, Ye.S., ved.red.

[Chemistry of the sulfur organic compounds in petroleum and petroleum products] Khimiia seraorganicheskikh soedinenii, soderzhashchikhsia v neftiakh i nefteproduktakh. Moskva, Khimiia, 1964. 286 p. (MIRA 18:4)

1. Nauchnaya sessiya po khimii sera- i azotoorganicheskikh soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh. 7th, Ufa, 1963. 2. Institut organicheskoy khimii Bashkirskogo filiala AN SSSR (for Soskova, Obolentsev). 3. Fiziko-khimicheskiy institut im. L.Ya.Karpova (for Gur'yanova). 4. Institut neftekhimicheskogo sinteza AN SSSR (for Gal'perin).

KEYER, N.P., doktor khim. nauk, otv. red.; MAKAROV, A.D., kand. khim. nauk, red.; MASHKINA, A.V., kand. khim. nauk, red.; NAZARYANTS, T.M., red.

[Scientific principles underlying the selection and preparation of catalysts] Nauchnye osnovy podbora i proizvodstva katalizatorov. Novosibirsk, Red.-izdatel'skiy otdel Sibirsk. otd-niia AN SSSR, 1964. 490 p. (MIRA 18:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye.

L 1701-66 EWT(m)/EPF(c) RM

ACCESSION NR: AP50[illegible] UR/0204/65/005/004/0582/0585

AUTHOR: [illegible], A. V.; Yermakova, A.; Savostin, Yu. A.

TITLE: Process for production of sulfolane (hydrogenation of sulfolene)

SOURCE: Neftekhimiya, v. 5, no. 4, 1965, 583-585

TOPIC TAGS: hydrogenation, organic sulfur compound, hydrogen, catalysis, nickel compound, chromium compound

ABSTRACT: Experiments on the hydrogenation of sulfolene to sulfolane were carried out in a flow unit at 35C over a catalyst with a grain size from 1.5 to 2.5 mm, at a hydrogen feed rate of 8 liters/hour, and at different pressures and concentrations of the sulfolene in the sulfolane. It was found that at a pressure of 1 atm and at low concentrations of sulfolene (up to approximately 10 wt %) the reaction rate is described by an equation of the first order. With further increase in the concentration, the reaction rate at 1 atm pressure is described by an equation of zero order. At 5 atm, at all concentrations studied, the reaction rate is first order. The average value of the reaction rate constant is 1.5 kg/kg-hr. At

L 3703-66

ACCESSION NR: AP5020057

sulfolane concentrations in the solution greater than 10 wt % and at pressures less than 5 atm, the reaction rate is determined by the rate of hydrogen feed to the outer surface of the catalyst. At pressures greater than 10 atm, the pressure had no effect on the reaction rate and the latter was a linear function of the amount of catalyst. It was concluded that the following parameters are suitable for an industrial unit: pressure 5-20 atm; temperature 35C; solvent, sulfolane; concentration of sulfolane in the starting solution 10 wt %; catalyst, nickel chromium; particle size of catalyst 4 x 5 mm. Orig. art. has: 7 formulas and 3 figures

ASSOCIATION: Institut kataliza, Sibirskoe otdelenie AN SSSR (Catalysis Institute, Siberian Branch AN SSSR)

SUBMITTED: [illegible] ENCL: 00 SUB CODE: GC

NR REF SOV: 000 OTHER: 000

Card 2/2

CESSION NR: AT4040452 S/2933/64/006/000/0301/0307

THOR: Mashkina, A. V.

TLE: Problems in studies of the catalytic conversions of sulfur organic compounds

URCE: AN SSSR. Bashkirskiy filial. Khimiya seraorganicheskikh soyedineniy, derzhashchikhsya v neftyakh i nefteproduktakh, v. 6, 1964, 301-307

PIC TAGS: petroleum refining, petrochemical manufacture, catalytic cracking, atforming, hydrocracking, catalytic reforming, hydrogenolysis, dehydrogenation, clization, catalytic dealkylation, sulfur organic compound, contact oxidation, talytic addition, catalytic synthesis

STRACT: The report is a rather generalized review of past research (mainly viet) on catalytic conversions of sulfur organic compounds and suggests areas quiring supplemental research. These include experimental determination of accurate values for the thermodynamic properties of key sulfur-containing molecules; lequate consideration of the effects of various sulfur organic compounds on the nction of aluminosilicate catalysts; supplemental analysis of the effects of lfur organic compounds on alumino-platinum catalysts used in platforming at viet refineries; further research on the mechanism of hydrogenolysis and function-

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CESSION NR: AT4040452

g of hydrocracking catalysts, as well as clarification of the mechanisms and netics of selective hydrogenation of sulfur organic compounds in the presence olefinic hydrocarbons; studies of conversion kinetics utilizing the forced cir- lation method; wider and more detailed study of hydrogenolysis, dehydrogenation, talytic dealkylation and cyclization of sulfur organic compounds as processes led in the production of petrochemicals; contact oxidation of sulfides and thio- enes; catalytic addition of hydrogen sulfide to unsaturated compounds; selection catalysts for hydrogen sulfide interaction with alcohols; and catalytic syn- esis of methyl mercaptan from methyl alcohol and hydrogen sulfide. Orig. art. s: 8 chemical equations.

SSOCIATION: Institut kataliza Sibirskogo otdeleniya AN SSSR (Institute of Cata- /sis, Siberian Section AN SSSR)

UBMITTED: 00 ENCL: 00

UB CODE: FP, OC NO REF SOV: 025 OTHER: 005

Card 2/2

AGAFONOVA, G.S.; LIUKSEMBURG, M.S.; MASHKINA, V.I.

Setting of standards for the acceptance test of dry cured hides. Kozsh.-obuv.prom. TSNIIKP no.32:16-22 '60. (MIRA 15:12)
(Hides and skins—Standards)

GAL'PERIN, L.N.; MASHKINOV, L.B.; SOKOLOV, D.N.

Laboratory automatically-integrating chromatograph. Izm. tekh. no.11:50-51 N '65. (MIRA 18:12)

MASHKO, A. A., VECHER, A. S. (USSR)

"Amino-Acid Compositions of the Proteins from Various Types of Plastids."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

L 17167-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD S/0032/63/029/007/0806/0806

ACCESSION NR: AP3004232

AUTHORS: Syavtsillo, S. V.; Nikol'skaya, A. M.; Vashko, T. Ye. 58

TITLE: Determination of nitrogen in boron and silicon nitrides

SOURCE: Zavodskaya laboratoriya, v. 29, no. 7, 1963, 806

TOPIC TAGS: boron nitride, silicon nitride, nitrogen determination

ABSTRACT: A 0.03-0.15 gm aliquot of the nitride is placed in a porcelain combustion boat containing 2-3 gms powdered lithium hydroxide, with which the sample is covered. The boat is inserted in a porcelain tube. To one end of the tube are affixed two absorption wash bottles, each containing 20 ml of 2% boric acid, and to the other end an absorption wash bottle with 20 ml concentrated sulfuric acid. The oven is heated to 750-800C in 15 minutes, and simultaneously air is passed through at a rate of 65-70 bubbles per minute. This carries with it the fumes of the formed ammonia and water vapors, which are absorbed by the boric acid solution. Within 30 minutes after the temperature has reached 800C (when the evolution of ammonia has ceased) the solutions from the wash bottles with boric acid are transferred to an Erlenmeyer flask, and the excess boric acid is titrated back with a 0.1 normal solution of hydrochloric acid, with methyl orange as an indicator. The method was checked

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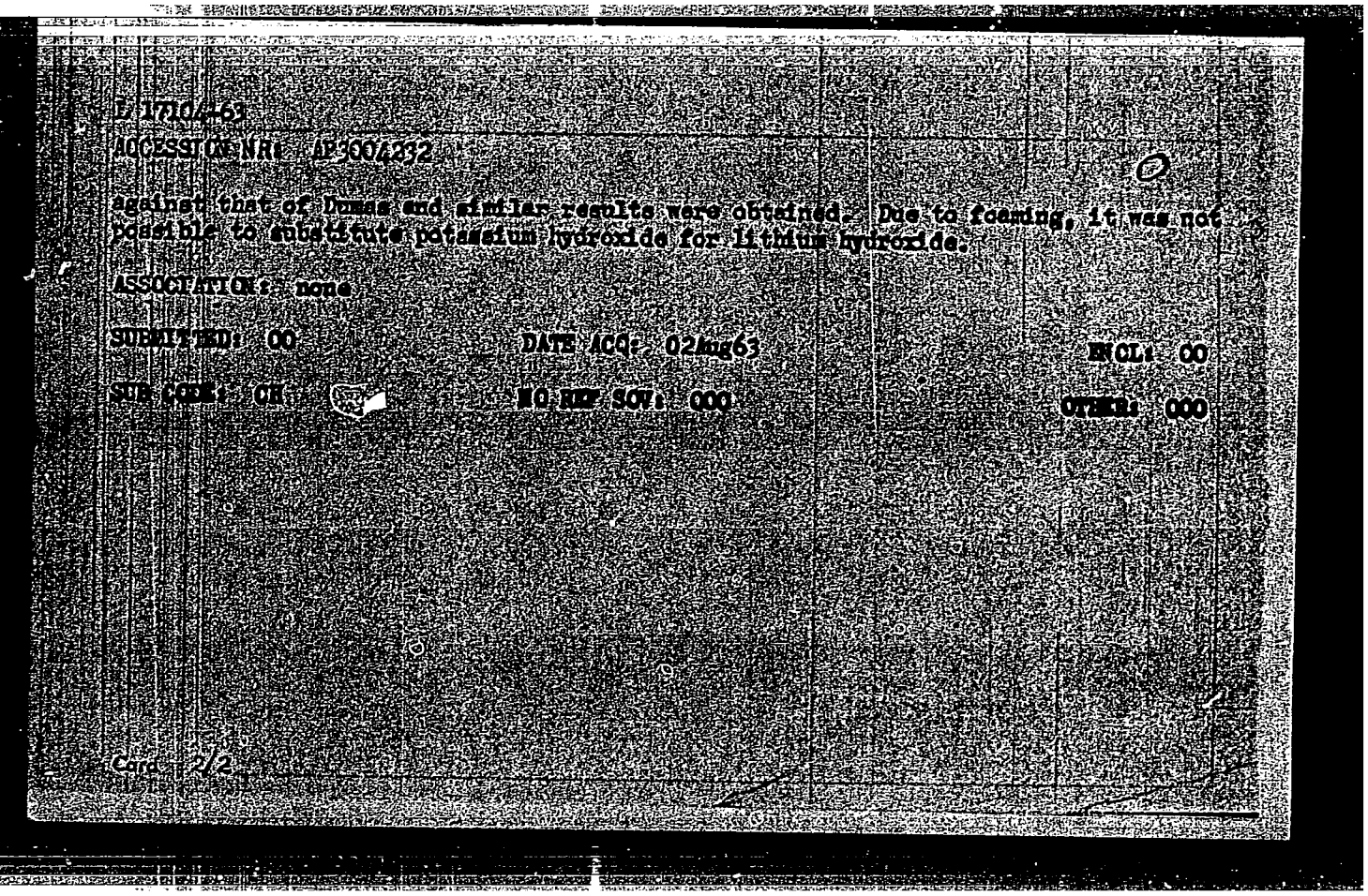

L 17104-63
ACCESSION NR: AP3004232

against that of Dumas and similar results were obtained. Due to foaming, it was not possible to substitute potassium hydroxide for lithium hydroxide.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: OC NO REF SOV: 000 OTHER: 000

Card 2/2

MASHKOV, A., insh.; MORAVSKIY, L., kand.yurid.nauk

Houses built by collectives and by individual owners and their territorial distribution. Zhil.-kom.khos. 9 no.11: 16-17 '59. (MIRA 13:2)
(Building) (City planning)

MASHKOV, A., inzh.-izobretatel'

Six simple components. Izobr.i rats. no.8:15-17 Ag '60. (MIRA 13:7)
(Precast concrete construction)

MASHKOV, A.A.

MASHKOV, A.A.--"Investigation of the Efficiency of Stage Regulation of the Power of 'GAZ-51' Motor." Cand Tech Sci, Moscow Order of the Labor Red Banner Higher Technical School imeni Bauman, 15 Jan 54. (Vechernyaya Moskva, 7 Jan 54)

SO: Sum 168, 22 July 1954

SOV/124 58-11-12135

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 24 (USSR)

AUTHOR: Mashkov, A. A.

TITLE: A Graphic Method for Kinematic Analysis of Plane Mechanisms (Kinematicheskiy analiz ploskikh mekhanizmov metodom grafikov)

PERIODICAL: Tr. Tashkentsk. in-ta inzh. irrig. i mekhaniz. s. kh., 1957, Nr 6, pp 13-42

ABSTRACT: The author recommends that the kinematic-graph method be regarded as a separate independent section of the theory of mechanisms and gives his own ideas of how that section should be defined.

S. G. Kislitsyn

Card 1/1

SOV/129-59-1-3/17

AUTHORS: Blanter, M.Ye., Doctor of Technical Sciences, Professor and Mashkov, A.K., Engineer

TITLE: Anomalous Changes in the Properties of Alloys During Phase Transformations (Anomal'nyye izmeneniya svoystv splavov v protsesse fazovykh prevrashcheniy)

PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov, 1959, Nr 1, pp 6 - 10 (USSR)

ABSTRACT: It follows from general considerations that some atoms of an alloy which participate in the process of phase transformation are in a particular state in which the transfer of atoms from one crystal lattice to another is probably accompanied by a temporary weakening of the inter-atomic bond forces. This should bring about an anomalous change of a number of physico-chemical and mechanical properties of the alloys and if these changes are of sufficient magnitude , they can be detected by known methods of investigation. These anomalous effects will apparently be of a different nature than the increase in ductility during hardening and tempering of steel which was observed earlier by Kayushnikov, P.Ya. (Ref 1) and has also been investigated by Vorob'yev (Ref 2) and Gol'denberg (Ref 3). Obviously, an orientated decomposition

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Anomalous Changes in the Properties of Alloys During Phase Transformations

and directional diffusion cannot bring about anomalous changes of such properties as the electric conductivity for instance. The aim of the work described in this paper was to establish the presence of similar effects in the changes of the electric resistance and resistance to plastic deformation. For this purpose, the kinetics of the phase transformations of the investigated alloys were studied first and from the obtained kinetic diagrams, thermal regimes were determined which are suitable for studying the character of the property changes. The anomalous changes in the electric resistance during phase transformations were investigated on a steel containing 9.18% Cr, 0.02% C, 0.16% Mn and 0.19% Si. The determined diagram of the isothermal transformation of the alloy is graphed in Figure 1, p 7. 3 mm dia, 30 mm long specimens were austenized at 900 °C (the Ac_3 range was 815 to 850 °C) with a holding time of 5 min. In Figure 2, the change in the specific electric resistance during the phase transformation and the curves of isothermal transformation at 615 °C are graphed. In Figure 3, the change is graphed

Anomalous Changes in the Properties of Alloys During Phase Transformations

of the speed of transformation, the electric conductivity and the degree of transformation during isothermal annealing at 615 °C. The correlation between the speed of transformation and the magnitude of the anomalous increase in electric conductivity is graphed in Figure 4. The anomalous change of the resistance to plastic deformation during phase transformation was studied by measuring the hardness of an alloy containing 0.06% C, 22.19% Ni, 2.52% Mn, 0.047% Si. The diagram of isothermal transformation of austenite and martensite for this alloy is graphed in Figure 5. The change in the hardness of the austenite-martensite mixture during isothermal transformation (at -29 °C) is graphed in Figure 6. It was found that during phase transformation, anomalous changes took place in the electric conductivity and the resistance of the material to plastic deformation. These anomalous changes (appreciable increase of the electric conductivity and decrease of the resistance to plastic deformation) coincide with the period of intensive transformation. These anomalous changes indicate that the metallic alloys are in a particular

Anomalous Changes in the Properties of Alloys During Phase Transformations

state during phase transformations. These anomalous changes in the properties are characterised by a weakening of the interatomic bonds and an acceleration of the processes of plastic deformation and electron transfer. Therefore, it is necessary to treat with caution resistance curves determined during the process of transformation, before the state of the alloy has been stabilised by hardening. There are 6 figures and 4 Soviet references.

ASSOCIATION: Vsesoyuznyy zaochnyy mashinostroitel'nyy institut (All-Union Correspondence Engineering Institute)

S/137/61/000/001/037/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No.1, p.18, # 1I162

AUTHORS: Sevast'yanov, N.S., Mashkov, A.K.

TITLE: On the Effect of Nickel and Chromium Admixture and Changes in the Carbon Content on the Properties of High-Manganese Steel

PERIODICAL: "Tr. Omskogo mashinostr. in-ta", 1959, No. 3, pp. 145-159

TEXT: The effect of the content of (in %): Ni 0.34 - 0.84, Cr 0.26 - 0.90 and C 0.94 - 1.34, on the mechanical properties (σ_b, σ_s, δ, ψ, a_k) the microstructure and wear resistance of Г13 (L013) manganese steel was investigated. It was established that Ni and Cr (in the indicated amounts) did not affect the properties of Mn-steel, which depend mainly on the C content and the teeming temperature. The latter should be $\leq 1,450^{\circ}C$. For castings operating under dynamic loads it is recommended to reduce the C content down to 0.9 - 1.1%. There are 6 references.

T. F.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

S/123/61/000/013/018/025
A052/A101

AUTHOR: Mashkov, A. K.

TITLE: On the possibility of utilizing the own heat of ЛГ-13 (LG-13) steel cast for heat treatment and on the properties of heat treated steel

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 13, 1961, 29, abstract 13 G177 (Tr. Omskogo mashinostroit. in-ta", 1959, no. 3, 207-222)

TEXT: The hardening of LG-13 steel produced in a green sand mold immediately after extraction from the mold (with the surface temperature of 890-1,000°C) results in a dendritic austenitic structure with properties acceptable for castings of the lining plate type. The hardening of steel cast in the same way but with the temperature equalization after extraction from the sand mold, secures a polyhedral austenitic structure with properties meeting the demands of important castings of this steel. Steel produced in a metal mold can be hardened by either method, depending on the cross-section of the casting. There are 16 figures and 2 references.

N. Il'ina

[Abstracter's note: Complete translation]

Card 1/1

MASHKOV, A. K., Cand Tech Sci -- (diss) "Changes in alloy properties in phase transformation processes." Moscow, 1960. 21 pp including cover; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Labor Red Banner Inst of Steel im I. V. Stalin); 120 copies; free; (KL, 17-60, 156)

S/148/60/000/011/014/015
A161/A030

AUTHORS: Blanter, M. Ye., Mashkov, A. K.

TITLE: Strength variations in the process of the alpha-gamma transformation in alloyed iron

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya. no. 11, 1960, 133 - 142

TEXT: The mechanical properties of armco iron and of alloy steel in the allotropic transformation stage had been studied previously, and the peculiar, spontaneous increase of plasticity had been noticed in two works (Ref. 9: Tamaki. J. Japan. Inst. Metals, 1955, No.2, 19 and Ref. 10: P.Ya. Kayushnikov. Sb. "Peredovoy opyt proizvodstva ("Advanced production experience"). Goryachaya obrabotka metallov", 1956). The authors of this article studied this in the cases of direct and reverse martensitic transformation (Ref. 11 and 12; Blanter and Mashkov, in "Metallovedeniye i termicheskaya obrabotka metallov", 1959, No. 1 and No. 11), and stated that the alpha-gamma transformation intervals are limited with the points A_1 and A_3, i.e., that the first stage of transformation is from pearlite

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Strength variations in the . . .

into austenite ($\alpha \rightarrow \gamma$), and the following is pure alpha-gamma transformation. The behaviour of metal in the $\alpha \rightarrow \gamma$ transformation in the absence of the point A_1 is of practical interest. It has been studied in the described experiments with Fe-Cr alloys (in view of the very extensive use of Cr for alloying), i.e., armco iron with Cr, in five different combinations. The metal was melted in an induction furnace, homogenized at 1100°C for 5 hours, then the ingots were forged into rods 12 mm in diameter, and their mechanical properties at an interval of 1 - 2° investigated, and the limits of the interval determined by preliminary dilatometric analysis. The experiment results are illustrated in a series of graphs. The characteristical "dips" on the hardness curves (Figure 6) were observed, and the curves stated to run roughly parallel to the Cr content. The difference of 7.1% Cr (between the minimum and maximum in the five compositions) caused a difference in hardness of 5 ½ 10 kg/mm^2. The authors think that the "dip" of strength (Figure 7) is connected with the effects of two factors: one leads to the strengthening and is connected with the formation of phase hardening on account of the difference in the specific volumes of ferrite and austenite (curve 1), and the other is the temporary weakening of the

Card 2/5

Strength variations in the ....

bond between atoms regrouping into a new crystalline grid. The maximum strength drop is in the mid of the interval (curve 2 in Figure 7). A uniform strength reduction through the whole interval must continue, too, on account of the recrystallization process. The effect of the factors increases (curve 3). The peaks at the beginning and end of the transformation interval are due to the effect of the phase hardening. There are 7 figures and 12 references: 8 Soviet and 4 non-Soviet. One reference is English and reads as follows: (Ref. 2) A. Sauveur. Trans.Am. Soc. for Steel Tr., 1930, XVII, No. 3.

ASSOCIATION: Vsesoyuznyy zaochnyy mashinostroitel'nyy institut (All-Union Correspondence Institute of Machine Building).

SUBMITTED: February 20, 1960

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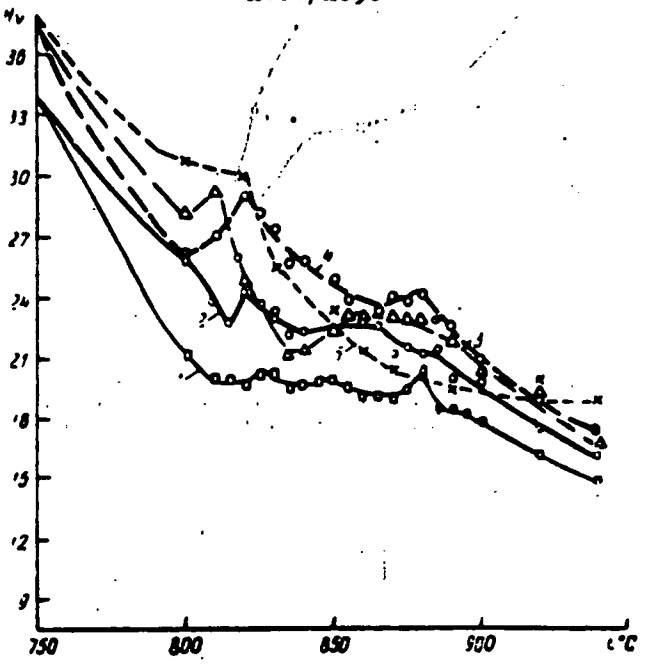
S/148/60/000/011/014/015
A161/A030

Strength variations in the ....

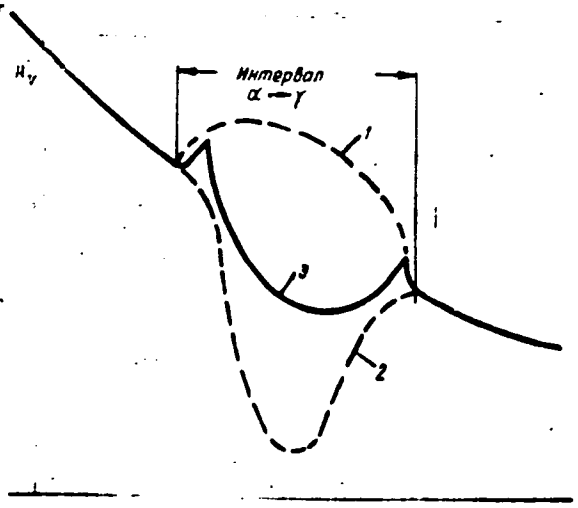
Figure 6: Hardness variations with temperature (°C) in $\alpha - \gamma$ transformation in the five alloys: (1) with 4.32 % Cr; (2) 6.58 % Cr; (3) 9.18% Cr; (4) 11.52 % Cr; (5) 12.63% Cr.



Card 4/5

Strength variations in the ....

Figure 7: (1) strengthening by phase hardening; (2) weakening through weaker atomic bonds; (3) the summary effect.



Card 5/5

2.312

S 148/61/000/001/011/015
A161/A133

18 7500

AUTHORS: Blanter, M. Ye., and Mashkov, A. K.

TITLE: Isothermic transformation of supercooled austenite in binary iron-chromium alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 1, 1961, 160 - 165

TEXT: The results are given of an experimental investigation carried out in view of insufficient literature data on the kinetics of the isothermic decomposition of austenite in Fe-Cr alloys. The carbon free alloys were prepared in an induction furnace from armco-iron. Investigation data for one of the studied alloys, with 9.18% Cr, and the isothermic austenite transformation diagram had been published by the authors previously (Ref. 5: Blanter and Mashkov, Metallovedeniye i termicheskaya obrabotka metallov, 1959, no. 1). The chemical composition and Ac_3 ranges of the four other alloys are the following:

Card 1/5

24212

S/148/61/000/001/011/015
A161/A133

Isothermic transformation of supercooled...

The alloy index:	(%) Cr	C	Si	Mn	Ni	Ac_3 range, °C
X4	4.32	0.02	0.18		0.29	825-880
X7	[illegible]	0.03	0.16		0.29	[illegible] 858
X11,5	[illegible]	0.04	0.20	0.12	0.28	820-87[illegible]
X12,6	12.6[illegible]	[illegible]	0.56		0.29	822 (beginning)*

* The X12,6 alloy is subjected only to a partial α-γ-transformation.

The transformation ranges were determined with a Chevenard dilatometer, and the transformation kinetics studied with an anisometer. The austenization temperature in 3 mm diameter and 30 mm long specimens exceeded by 50°C the temperature of the $\alpha \to \gamma$ transformation end, the holding time was 5 min. Specimens of X12,6 were heated to 920°. The information includes diagrams indicating the kinetics variations in the four alloys with increasing Cr content, and four photomicrographs. Conclusions: 1) An addition of up to 9% Cr results in an abrupt inhibition of decomposition of supercooled austenite. A further increase of the Cr-content to 11 and 12.6% has practically

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no effect on the transformation rate. This is due to the peculiar effect of Cr on the position of A_3 temperature and hence on the difference of free energy values of α-γ-phases. 2) An addition of Cr extremely increases the stability of supercooled austenite in the upper temperature range near the martensite point. 3) An addition of Cr decreases the martensite transformation range. The isothermic transformation time of austenite into martensite is not clearly connected with the alloy composition. 4) The structure formation during supercooled austenite transformation in carbon-free alloys is either by diffusion and a resulting grainy structure, or by the martensitic process with a resulting acicular structure. It may be assumed that drop ferrite forms as in the following. When acicular alpha structure is forming below the recrystallization threshold of austenite but above the ferrite threshold - the diffusion process of alpha recrystallization leads to a breaking up of the martensite "needles". Thus, the so-called "droplet" ferrite forms from acicular structures in connection with subsequent recrystallization after transformation, because the temperature threshold of ferrite recrystallization is lower than the threshold of austenite. There are 5 figures and 5 Soviet-bloc references.

24212
S/148/61/000/001/011/015
A161/A133

Isothermic transformation of supercooled...

ASSOCIATION: Vsesoyuznyy zaochnyy mashinostroitel'nyy institut (All-Union Correspondence Institute of Mechanical Engineering)

SUBMITTED: May 27, 1960

Fig. 4. The effect of Cr on the position of the martensitic transformation range

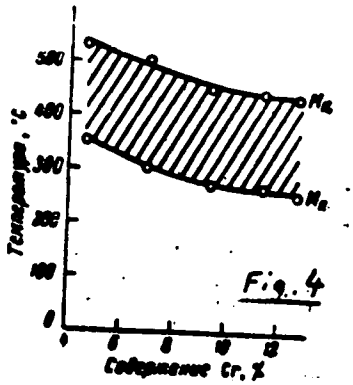

Fig. 2. The effect of Cr on the austenite transformation rate in high temperature ranges (at 700°C isotherm). 1 - X4; 2 - X7; 3 - X9; 4 - X11,5; 5 - X12,6.
(1) - Transformation degree, in %;
(2) - Time, min

Card 4/5

BLANTER, M.Ye.; MASHKOV, A.K.

Changes of electric resistance and thermoelectromotive force in the process of $\alpha \rightleftarrows \gamma$ iron alloy transformation. Fiz. met. i metalloved. 11 no. 2:194-202 F '61. (MIRA 14:5)

1. Vsesoyuznyy zaochnyy mashinostroitel'nyy institut.
(Iron alloys—Metallography) (Thermoelectricity)

MASHKOV, M. N.

GAYEVOY, Ye.V.; MASHKOV, A.N.

Commercial properties of Angora-type goatskin and experience in its use for the production of leather and fur. Leg.prom. 17 no.6: 15-17 Je '57. (MLRA 10:8)

(Hides and skins) (Goats)

MASHKOV, A.N., kand.sel'skokhoz.nauk

Need for a revision of state standards for raw sheep pelts for fur and sheepskin garments. Kozh.-obuv.prom. 2 no.6:4-8 Je '60. (MIRA 13:9)

(Hides and skins--Standards)

MASHKOV, A.N., kand.sel'skokhozyaystvennykh nauk

Commercial properties of the pelts of coarse-wooled Carpathian Mountain and crossbred Tsinghai x Carpathian Mountain sheep. Nauch.-issl.trudy NIIMP no.10:24-27 '60.

(MIRA 14:4)

(Sheep) (Hides and skins)

VINOGRADOV, Aleksandr Petrovich; KEDRIN, Yevgeniy Alekseyevich; TSEREVITINOV, Boris Fedorovich; SERGEYEV, M.Ye., zasl. deyatel' nauki, prof., doktor tekhn. nauk, retsenzent; BULGAKOV, N.V., prof., doktor tekhn. nauk, retsenzent; PLATUNOV, K.M., kand. tekhn. nauk, retsenzent; SHVETSOVA, T.P., insh., retsenzent; MURVANIDZE, D.S., insh., retsenzent; YEGORKIN, N.I., prof., doktor tekhn. nauk, retsenzent; MASHKOV, A.N., kand. sel'khoz. nauk, retsenzent; ARKHANGEL'SKIY, N.A., prof., red.; BORISOVA, G.A., red.; GROMOV, A.S., tekhn. red.

[Leather goods, shoes, furs and pelts] Kozhevenno-obuvnye, pushno-mekhovye i ovchinno-shubnye tovary. Pod red. N.A.Arkhangel'skogo. Moskva, Gos. izd-vo torg. lit-ry, 1962. 536 p. (MIRA 15:3)

(Boots and shoes) (Fur) (Hides and skins)

MASHKOV, A. N., kand. sel'skokhozyaystvennykh nauk

The problem of the production of sheep pelts for garments has to be solved. Kozh. obuv. prom. 4 no.10:10-12 O '62. (MIRA 15:10)

(Fur) (Sheep breeding)

PANYUKIN, I.I., kand.tekhn.nauk [deceased]; GAYEVOY, Ye.V., kand. sel'skokhoz.nauk; MASHKOV, A.N., kand.sel'skokhoz.nauk

New method of preserving fur and garment sheep pelts. Kozh.obuv.-prom. 4 no.11:30-32 N '62. (MIRA 15:11)
(Hides and skins)

PANYUKIN, I.I., kand.tekhn.nauk [deceased]; GAYEVOY, Ye.V., kand. sel'skokhos.nauk; [illegible], kand.sel'skokhos.nauk

Processing of sheep pelts preserved with formaldehyde hyposulfite solutions. Kozh.-obuv.prom. 4 no.12:22-24 D '62. (MIRA 16:1)

(Fur)

MASHKOV, A., kand.sel'skokhozyaystvennykh nauk

The observation of technology is a law for the enterprises. Mias.ind. SSSR 33 no.3:9-10 '62. (MIRA 15:7)

1. Nauchno-issledovatel'skiy institut mekhovoy promyshlennosti. (Hides and skins) (Meat industry--By-products)

MASHKOV, A.N., kand.sel'skokhozyaystvennykh nauk

Studying the commercial characteristics of the sheep skins obtained from improved Alai sheep breeds. Nauch.issl.trudy NIIMP no.11: 3-10 '62. (MIRA 16:5)

(Alai Range--Sheep) (Hides and skins)

MASHKOV, A.M., kand. [illegible]

Characteristics of [illegible] groups of young animals. [illegible]

MASHKOV, [illegible] kand. sel'skokhoz. nauk

Requirements of the industry regarding the quality of raw sheep pelts. Kozh.-obuv. prom. 7 no.5:14-17 My '65.
(MIRA 18:8)

MISHARIN, Dmitriy Mikhaylovich; MASHKOV, Aleksandr Mikitich; DRIZE, I.D., redaktor; AVRUTSKAYA, R.F., redaktor izdatel'stva; MIKHAYLOVA, V.V., tekhnicheskiy redaktor

[Organization and planning of production in mining enterprises] Organizatsiia i planirovanie proizvodstva na gornorudnykh predpriiatiiakh. Moskva, Ges. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 374 p. (MLRA 10:1)
(Mining engineering)

MASHKOV, A. N.

SHTEYNBERG, Ye.S.; MASHKOV, A.N.

Revising the wage system and transferring the nonferrous metal industry to a shortened work day. Gor. shur. no.8:39-40 Ag '57. (MLRA 10:9)
(Nonferrous metal industry)
(Hours of labor) (Wages)

MASHKOV, A.N.

137-58-5-9263

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 69 (USSR)

AUTHORS: Shteynberg, Ye.S., ~~Mashkov, A.N.~~

TITLE: Conversion of Nonferrous Metallurgy Establishments to a Shorter Working Day and a New Wage System (O perevode predpriyatiy tsvetnoy metallurgii na sokrashchennyy rabochiy den' i na novyye usloviya oplaty truda)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 11-12, pp 2-8

ABSTRACT: Bibliographic entry

1. Industry--USSR 2. Employee relations--USSR

Card 1/1

MASHKOV, A.N.

137-58-5-9262

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 69 (USSR)

AUTHORS: Shteynberg, Ye.S., Mashkov, A.N., Drize, I.D.

TITLE: Introduction of a New Wage System for Workers in Nonferrous Metallurgy Establishments (Opyt vvedeniya novykh usloviy oplaty truda rabochikh na predpriyatiyakh tsvetnoy metallurgii)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 15, pp 31-34

ABSTRACT: Bibliographic entry

1. Metallurgy--USSR 2. Labor--Standards

Card 1/1

SHTEYNBERG, Ye.S.; MASHKOV, A.M.; DRIZE, I.D.

Some problems concerning wages. Biul. TSIIN tsvet. met. no. 5:33-35 '58. (MIRA 11:7)

(Nonferrous metal industries)
(Wages)

DRIZE, Iosif Davydovich; MASHKOV, Aleksandr Nikitich; SHTEYNBERG, Ye.S., red.; AVRUTSKAYA, R.F., red.izd-va; ISLENT'YEVA, P.G., tekhn.red.

[Wage organization in nonferrous metal mines] Organizatsiia zarabotnoi platy na rudnikakh tsvetnoi metallurgii. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1959. 295 p. (MIRA 12:9)
(Wages) (Mine management)

DRIZE, Iosif Davidovich; MASHKOV, Aleksandr Nikitich; GINZBURG, Ye.G., red.; AVRUTSKAYA, R.F., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Organization of wages in plants of nonferrous metallurgy] Organizatsiia zarabotnoi platy na zavodakh tsvetnoi metallurgii. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 295 p. (MIRA 14:9)
(Nonferrous metal industries) (Wage payment systems)

MIKHARIN, Dmitriy Mikhaylovich; MASHKOV, Aleksandr Nikitich; PIMENOV, I.I., otv. red.; OSVAL'D, E.Ye., red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Economics, organization, and planning of production at mining enterprises] Ekonomika, organizatsiia i planirovanie proizvodstva na gornorudnykh predpriiatiiakh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 406 p. (MIRA 14:11)
(Mine management)

ANTONOV, B.V.; MASHKOV, A.N., red.; KHUTORSKAYA, Ye.S., red.izd-va; [illegible]YAKOVA, G.M., tekhn. red.

[Establishment of work norms and wages] Normirovanie truda i zarabotnaia plata. Moskva, Metallurgizdat, 1963. 36 p. (MIRA 17:1)

BENUNI, Amayak Khristoforovich; MASHKOV, A.N., red.; KOVALEVSKIY, M.A., red.izd-va; GINZBURG, R.Ya., tekhn. red.

[Determining the economic efficiency of technical decisions in nonferrous metallurgy] Opredelenie ekonomicheskoi effektivnosti tekhnicheskikh reshenii v tsvetnoi metallurgii. Moskva, Metallurgizdat, 1963. 54 p.
(MIRA 17:1)

BENUNI, Amayak Khristoforovich; MASHKOV, A.N., red.; KOVALEVSKIY, M.A., red.izd-va; KOROVINA, N.A., tekhn. red.

[Reducing production costs is the source for increasing the national wealth] Snizhenie sebestoimosti produktsii - istochnik rosta obshchestvennogo bogatstva. Moskva, Metallurgizdat, 1963. 57 p. (MIRA 17:1)
(Nonferrous metal industries--Costs)

MASHKOV, Aleksandr Nikitich

[Organization of the establishment of technical norms in nonferrous metallurgy] Kak organizovano tekhnicheskoe normirovanie v tsvetnoi metallurgii. Moskva, Metallurgiia, 1964. 43 p. (MIRA 17:11)

FESHER, P.A.; MAKAROV, K.I.; YEFIMOV, L.I.; ZHIGAREV, S.V.; KOROLEVA, K.A.; MASHKOV, A.N.

Obtaining noncxidizing hot gas reducers from natural gas. Gaz. prom. 8 no.9:38-43 S '63. (MIRA 17:8)

DUMA, A.K., inzh.; MASHKOV, A.S., inzh.; KOVALEV, V.P., inzh.

Strengthened suspended scaffolding with mechanized hoisting.
Prom. stroi. 40 no.12:37-39 '62. (MIRA 15:12)
(Scaffolding)

MASHKOV, A. V.

"Test ofthe Allergenicity and Reactivity of Gayskiy's Living Tularaemia Vaccine."
Zhurn. Mikrobiol., Epidemiol. i Immunobiol. 1947 (7)5-54

1 10

MASHKOV, A. V. and Gotovskaya, Ts. N.

"On the Problem of a Method of Isolating the Casuative Agent of Tularemia from Water"

Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 9, 1950, pp70-72
W-24635, 3 Dec 1952

MASHKOV, A.V.

CHERKASSKIY, YE. S.; MASHKOV, A. V.; SORINA, S. YE.

Tularemia

Susceptibility of coypus to tularemia. Zool. zhur. 31 No. 4 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

Jun 53

MASHKOV, A. V.

USSR/Medicine - Tularemia

"The Effect of Massive Doses of Gayskiy's Strain on the Course of Acute Tularemia in Guinea Pigs," A. V. Mashkov, N. K. Mal'tsev, Moscow Oblast' Inst im I. I. Mechnikov

Zhur Mikro, Epid, i Immun, No 6, pp 40-44

Subcutaneous inoculation with large doses of Gayskiy's strain (a vaccine strain of B. tularense) saves from death the majority of guinea pigs infected with acute tularemia. Massive doses of Gayskiy's strain produce immunity in guinea pigs within 24 hrs, but large doses (100,000 bacterial bodies) of a highly virulent strain overcome this immunity. Within 4 days, the immunized animals acquire resistance to such doses of the virulent strain. Simultaneous infection of guinea pigs with a large dose of Gayskiy's strain and a sufficiently small dose of a virulent strain does not result in death.

M-153, 7 Feb 53

267T17

MASHKOV, Aleksandr Vasil'yevich.

Moscow Inst of Epidemology, Microbiology, and Infectious Diseases imeni Mechnikov. Academic degree of Doctor of Medical Sciences, based on his defense, 3 January 1955, in the Council of the 1st Moscow Order of Lenin Med Inst, of his dissertation entitled: "Study of Infection and Immunity in Experimental Tularemia."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 13, 4 June 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp. 5-24, Uncl. JPRS/NY-537

MASHKOV, A. V.

USSR/Medicine - Tularemia, immunology FD-2605

Card 1/1 Pub. 148 - 16/25

Author : Mashkov, A. V. and Mal'tseva, N. K.

Title : The change in the agglutinable characteristics of tularemia cultures due to the effect of heating at various temperatures

Periodical : Zhur. mikro. epid. i immun. 4, 72-75, Apr 1955

Abstract : Changes in the agglutinable characteristics of eleven virulent, one vaccine (Gayskiy), and two avirulent strains of tularemia bacilli after heating to various temperatures were examined. When heated to 56°C the viscosity of the cultures was increased and agglutinability decreased to almost zero. Agglutinability returned to normal levels after boiling. The results of the experiments are presented in three charts. No references are cited.

Institution : Moscow Institute of Epidemiology, Microbiology and Hygiene imeni Mechnikov (Director - M. I. Sokolov)

Submitted : April 14, 1954

MASHKOV, A. V.

"Certain Peculiarities of Anthrax in a Rural Locality," by A. V. Mashkov, Moscow Institute of Vaccines and Sera imeni I. I. Mechnikov, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 2, Feb 57, pp 87-92

This article describes an outbreak of anthrax in village Yu., rayon K-Yu. in 1953 and 1954, in which 11 persons died. The outbreak occurred with no apparent attendant epizootic among the animals in the area. The first seven victims, three children and four adults, died within 1-6 days after they first showed signs of illness. Anthrax was not diagnosed or suspected until 3 months later, when an autopsy by a pathologist from a medical institute revealed Bianthracis with the aid of the Ascoli test.

After anthrax had been established, a 56-year-old woman came down with disease. The day she became ill she was sent to the rayon center where she was transported to the infectious-diseases clinic of the oblast center by airplane. There she was treated with antianthrax serum and antibiotics, but died 3 days later. The pathological examinations of these victims showed involvement of the viscera, lungs, lymphatic systems, and pia mater typical of anthrax. None of them showed any cutaneous lesions. Two other adults and a child died within a year of the first case.

SUM. 13 74

MASHKOV, A. V.

An epidemiological investigation was carried out by the author; M. A. Nemshilova, director of an institute of vaccines and sera; and T. I. Chiranova, chief physician of the oblast sanitary-epidemiological station. The investigation revealed that the village had been recorded as an anthrax focus since 1934 and that several epizootics had occurred there between 1934 and 1938; consequently, all herd animals had been vaccinated with a "live anthrax vaccine" from 1938 to 1948. Since no cases of anthrax had appeared during that 10-year period, vaccinations were stopped. Although a cow had died of anthrax in 1951, vaccination was not resumed until the fall of 1953 after several people had died.

Five of the fatal cases occurred in one family and the remainder among persons associated with the family.

SUM. 1374

MASHKOV, A. V.

Several lambs had died shortly after the spring lambing period. Prior to their deaths they had been kept as is customary in this area, in the farmer's house, where the children were in close contact with them. After the sheep died the hide of one was dried and kept in the house. Three young goats that died after the human cases were diagnosed in the fall, upon examination, proved to have died from anthrax.

It is pointed out that none of these animals would have been vaccinated even if the vaccination program had been in progress since the vaccinations were carried out only in April and May and any animals born after that time would not have been vaccinated until the following year. The deaths of the lambs and kids had not been reported to the veterinary authorities since the animals were not yet 5 months old (farmers are compensated for the death of such animals after they are 5 months old).

It was concluded that the young animals had contracted anthrax from old spores present for many years. (U)

SUM-1374

MASHKOV, A.V.

Some peculiarities of anthrax in a rural district. Zhur. mikrobiol. epid. i immun 28 no.2:87-92 F '57 (MLRA 10:4)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni I.I. Mechnikova.

(ANTHRAX, prev. and control in Russia, in rural areas)
(RURAL CONDITIONS prev. of anthrax in Russia)

MASHKOV, A.V.; TARAMENKO, A.F.

Studies on pathogenesis of tularemia in experimental animals. Report No.3: Dynamics of multiplication of the causative agent and development of morphological changes in organs of white mice following subcutaneous administration of Pasteurella tularensis. Zhur. mikrobiol.epid. i immun. 28 no.8:122-125 Ag '57. (MIRA 11:2)

1. Iz Moskovskogo instituta vaktsin suborotok imeni Mechnikova.
(TULAREMIA, experimental,
multiplication of pathogens & morphol. changes after subcutaneous admin. of cultures (Rus))

MASHKOV, Aleksandr Vasil'yevich

[Anthrax; materials for lecture purposes] Sibirskaia iazva; materialy v pomoshch' lektoru. Moskva, In-t sanitarnogo prosveshchenila, 1958. 33 p. (MIRA 13:8)
(ANTHRAX)

MASHKOV, A.V., MIKHAYLOVA, Z.M.

Simple method for obtaining an agglutinogen from whooping cough cultures during the firs phase. Lab.delo 4 no.3:37-40 My-Je'58 (MIRA 11:5)

1. Iz otdela ostrykh detskikh infektsiy (zav. - prof. A.I. Dobrokhotova [deceased]) Instituta pediatrii AMN SSSR, Moskva.
(WHOOPING COUGH)
(ANTIGENS AND ANTIBODIES)

MASHKOV, A.V.

Immunogenic properties of two old tularemia strains (virulent and vaccinal). Zhur. mikrobiol. epid. i immun. 29 no.8:11-(MIRA 11:10) 13 Ag '58.

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova.

(PASTEURELLA TULARENSIS,
immunogenic properties of virulent & vaccinal strains (Rus))

AUTHORS: Obolentsev, R. D., Mashkina, A. V. 20-119-6-38/56

TITLE: The Hydrogenolysis Kinetics of Dibenzothiophene and Octahydrodibenzothiophene Over an Aluminum-Cobalt-Molybdenum Catalyst
(Kinetika gidrogenoliza dibenzotiofena i oktagidrodibenzotiofena nad alyumokobal'tomolibdenovym katalizatorom)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 119, Nr 6, pp. 1187-1190 (USSR)

ABSTRACT: The most important modern catalytic working processes of sulfurous mineral oils are based on the hydrogenolysis reactions of organo-sulfuric compounds. They are insufficiently investigated, especially the kinetics mentioned in the title, in spite of the widely spread application of the mentioned catalyst in the mineral oil processing industry. This gap is partly to be closed by the present paper. As the so-called "rest sulfur" mineral-oil products is highly represented by compounds of the thiophene series the authors selected the substances initially mentioned in the title (the second one is called 1, 2, 3, 4, 5, 6,

Card 1/4

The Hydrogenolysis Kinetics of Dibenzothiophene and Octahydrodibenzothiophene Over an Aluminum-Cobalt--Molybdemum Catalyst

20-119-6-38/56

7, 8-octahydro-benzothiophene). Their synthesis is already described. (Refs. 1, 2). As 0,5%-(according to sulfur)-solutions in technical cetane in a flowing-through plant (Ref. 3) with some modifications they were subjected to hydrogenolysis. For the purpose of describing the experimental results (Table 1) the authors tried to employ the kinetic equation by Frost for monomolecular reactions (Ref. 5). Other equations of this type (Refs. 6-9) are mentioned. According to the methodology by S. A. Kazeyev (Ref. 8) the authors found equations which represent the dependence of depth and velocity of both substances mentioned in the title on the duration of contact (Table 2). The correctness of the equations is confirmed by the satisfactory agreement of the experimentally determined and computed depths of the hydrogenolysis (Table 1). Because the clearing up of the dependence of the depth of hydro-desulfonation on the partial hydrogen pressure is important for industry, the authors deduced equations

Card 2/4

of the total dependence of depth and of the velocity of hydrogenolysis of both mentioned substances on the duration of contact and on the mentioned pressure. Because the parameter "b" is practically independent of this pressure, the authors could obtain, after corresponding substitutions the desired equations (8) - (11), which satisfy the experimental results (Table 1). The results of analysis referring to the absorption spectra within the ultra-violet range showed that the total sulfur contained within the liquid catalyst is represented by the not reacted dibenzothiophene and octohydro-dibenzothiophene. Only biphenyl forms the decomposition product of dibenzothiophene, its quantity within the limits of the experimental error agreeing with the quantity of the reacted dibenzothiophene. The hydrogenolysis of the latter proceeds in one stage where biphenyl and hydrogen sulfide form. There are 1 figure, 2 tables, and 10 references, 8 of which are Soviet.

The Hydrogenolysis Kinetics of Dibenzothiophene and Octahydrodibenzothiophene Over an Aluminum-Cobalt--Molybdenum Catalyst 20-119-6-38/56

ASSOCIATION: Bashkirskiy filial Akademii nauk SSSR (Bashkir Branch AS USSR)

PRESENTED: December 11, 1957, by A. V. Topchiyev, Member, Academy of Sciences, USSR

SUBMITTED: December 11, 1957

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MASHKOV, A.V.

Nutritive medium for the cultivation of Bacillus anthracis in capsule form. Lab.delo 6 no.6:27-29 N-D '60. (MIRA 13:11)

1. Institut pediatrii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. O.D.Sokolova-Ponomareva), Moskva.
(BACTERIOLOGY—CULTURES AND CULTURE MEDIA) (BACILLUS ANTHRACIS)

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Comparative antigenic activity of the first phase of a whooping cough culture and of an agglutinogen obtained from this culture. Zhur. mikrobiol. epid. i immun. 31 no.7:103-108 Jl '60. (MIRA 13:9)

1. Iz Instituta pediatrii AMN SSSR.
(HEMOPHILUS PERTUSSIS)

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(WHOOPING COUGH)

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Method of determining the properdin in human serum by the zymosan method. Zhur.mikrobiol.epid.i immun. 33 no.5:103-108 My '62. (MIRA 15:8)

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(PROPERDIN) (ZYMOSAN)

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Determination of complement components in dogs by means of reagents of human serum. Zhur.mikrobiol., epid. i immun. 42 no.9:138 S '65. (MIRA 18:12)

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[Manual on the quality of grain and grain products]Spravochnik po kachestvu zerna i produktov ego pererabotki. Moskva, Zagotizdat, 1962. 455 p. (MIRA 15:12)
(Grain trade)

KAZAKOV, D. A.

Dissertation: "An Investigation of Mechanical-Traction Machines and Tools for Initial Cultivation of the Soil on Deforested Areas From which the Stumps Have not Been Removed." Cand Tech Sci, Moscow Forestry Engineering Institute, 25 Jun 54. (Vechernyaya Moskva, Moscow, 16 Jun 54)

SO: Sum 318, 23 Dec 1954

L 00553-66

ACCESSION NR: AP5018822 UR/0554/65/000/007/0063/0065
65.011.54

AUTHOR: [illegible] (Candidate of technical sciences)

TITLE: Twin-blade combination forest plow PKL-2-70

SOURCE: Lesnoye khozyaystvo, no. 7, 1965, 63-65

TOPIC TAGS: plow, agricultural machinery, PKL 2 70 plow, TDT 60 tractor, TDT 75 tractor, PKL 70 plow, 2 R 15 trailer, MAZ 501 forest vehicle

ABSTRACT: A twin-blade combination forest plow (PKL-2-70) for use with tractors TDT-60 and TDT-75 has been introduced at the Ural'skiy lesotekhnicheskiy institut (Ural Forestry Institute). The plow has two one-or-two-sided blades 1910 mm apart, weighs 970 kg, plows 15 cm deep (70 cm wide per blade) and is 3200 mm long (including the supporting rig), 3790 mm wide and 1000 mm high (excluding the supporting frame). The frame was adapted from plow PKL-70, while the plow body and blades can be used directly from plow PKL-70. An axle from trailer 2-R-15 of forest vehicle MAZ-501 was used to hinge the two plows to the tractor. A chain and wire cable harness connected to the tractor winch permits lowering and raising of the plow. Besides doubling the output (2 blades), this plow minimizes the possi-

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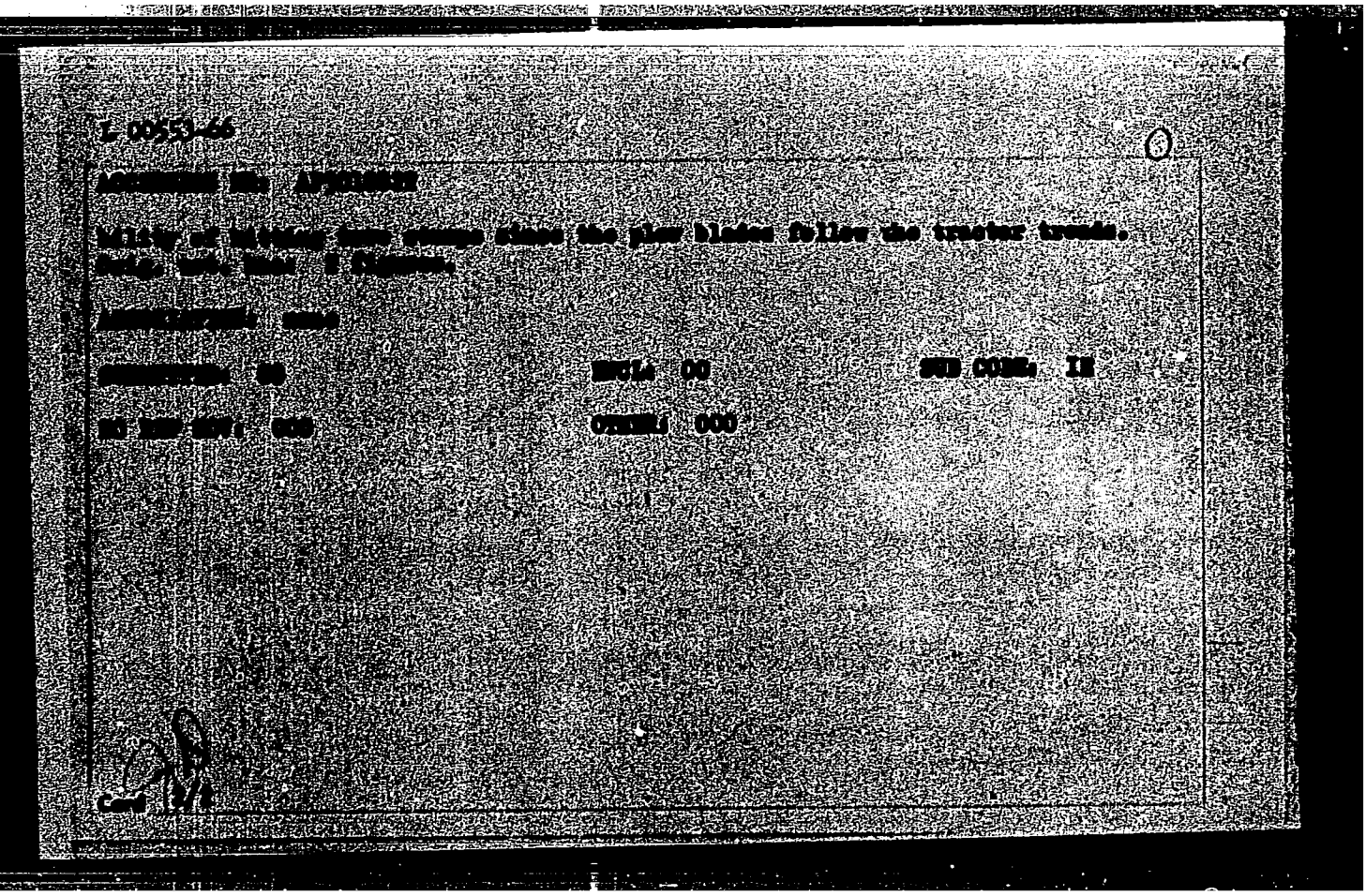

GILINSKIY, I.A., kand.tekhn.nauk; CHERKASSKIY, A.Kh., kand.tekhn.nauk, retsenzent; MOSKVIN, M.V., insh., retsenzent; KOZLOV, V.P., insh., retsenzent; MASHKOV, O.F., insh., retsenzent; YAKOVLEV, L.M., insh., red.; NIKITIN, A.G., red.izd-va; EL'KIND, V.D., tekhn.red.

[Heat, hydraulic, and air engines of rural electric power stations] Teplovye, gidravlicheskie i vetrianye dvigateli sel'skikh elektrostantsii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. 1958. 259 p. (MIRA 12:3)
(Air turbines) (Hydraulic turbines) (Electric motors)

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S/177/61/000/005/003/003
D264/D305

27.2200

AUTHORS: Myasnikov, V.A. and Mashkov, G.V., Lieutenant-Colonels, Medical Corps

TITLE: A case of marked barotrauma of the lungs with arterial gas embolism

PERIODICAL: Voyenno-meditsinskiy zhurnal, no. 5, 1961, 77-79

TEXT: The article describes a case of pulmonary barotrauma with arterial gas embolism accompanied by almost all the typical symptoms and by another, unusual symptom - convulsions. Barotrauma developed through failure in a diver's oxygen supply at a depth of 10 meters. The diver was sent to a recompression chamber. Fifteen minutes after being raised to the surface he developed clonic convulsions in fits of 10-15 seconds duration and at intervals of 2-3 minutes, and then 5-7 minutes. The convulsions were of the opisthotonos type, bending the head

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A case of marked barotrauma ...

and lower extremities. They lasted about 25 minutes and were reminiscent of convulsions from oxygen poisoning. The barotrauma is attributed to two factors: a) to deep inhalation from an empty respiratory sac, leading to exhaustion of the lungs and overstretching of the lung tissue beyond its elasticity which, in turn, led to barotrauma and subsequent gas embolism; b) as a result of a blow from the respiratory sac (although this is thought less likely), leading to a marked rise in lung pressure and the development of barotrauma. The clonic convulsions were due to pathological disturbances in the central nervous system, and primarily in the cerebral cortex. Some time after the barotrauma the gas emboles move along the blood stream and may penetrate the cerebral vessels, causing convulsions through disturbance of the blood supply to individual sections, with resultant pathological processes in the nerve cells. The mechanism of these pathological processes is still not clear. The

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